

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014759**Date Inspected:** 10-Jun-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** An Qing Xiang.**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY 11

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as Shear plate A25. The weld designations reviewed are as follows.

WD1-A25B/E-174, 187

NDT Notification No-005946

This QA Inspector observed the following work in progress:

BAY 11: SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 251194, Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ND1-STSA4-10-119M-1-17, 18, 47, 48, ZPMC QC Identified as Mao Bin Bin, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2112.

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Repair Welding

This QA Inspector observed ZPMC qualified welding personnel identified as 040610, Perform Shielded Metal Arc Welding (SMAW) on Tower strut. Joint identified as SD1-STSA4-5-119M-1-47A. ZPMC CWI Identified as Yu Dong Ping, with Temporary welding repair report. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-2G (2F) FCM-Repair-1.

Repair Welding

This QA Inspector observed ZPMC qualified welding personnel identified as 044541, Perform Shielded Metal Arc Welding (SMAW) on Tower strut. Joint identified as WD1-STSA4-5-139M-1-7A. ZPMC CWI Identified as Yu Dong Ping, with Temporary welding repair report. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-2G (2F) FCM-Repair-1.

Repair Welding

This QA Inspector observed ZPMC qualified welding personnel identified as 040655, Perform Shielded Metal Arc Welding (SMAW) on East tower lift 5 transverse Plate, Plate identified as TD5-15. ZPMC QC Identified as Zhao Mao Mao, with Temporary welding repair report WRR-T-WR3343. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-485-SMAW-2G (2F) FCM-Repair-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 040619, 049704, Perform Shielded Metal Arc Welding (SMAW) on West tower lift 5 Grillage plate. Joint identified as WSD1-TL5-4B/F-34A/B. ZPMC QC Identified as Zhao Mao Mao, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-B-U3b.

This QA Inspector observed ZPMC qualified welding personnel identified as 046709, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate. Joint identified as ESD1-SPSA5-7-2B. ZPMC QC Identified as Xu Jie, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5b-1.

Ultrasonic Testing:

This QA Inspector observed ZPMC Ultrasonic Testing Inspector, performed UT on Tower Strut web to flange joint. Item identified as ND1-STSA4-6-127M-2, and ED1-STSA4-6-139M-2.

During random visual inspection in Bay 11, this Quality Assurance Inspector (QA) discovered the following issue: ZPMC personnel performing Flux Core Arc Welding for base metal repair on mislocated holes on the surface of shear plate WD1-A25. ZPMC Quality Control (QC) presented WPS-345-FCAW-1G (1F)-Repair as applicable to this repair. The repair welding was done without elongating the holes drill area as required by applicable WPS. This repair welding was performed in the similar manner on four (4) holes of shear plate WD1-A25. Shear plate identified as WD1-A25. The members are located in Bay #11.

This QA Inspector generated incident report for this date, for further information see attached pictures and incident report.

BAY 10: SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 050289, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate. Joint identified as SSD1-SPSA5-16-1A. ZPMC QC Identified as Yu

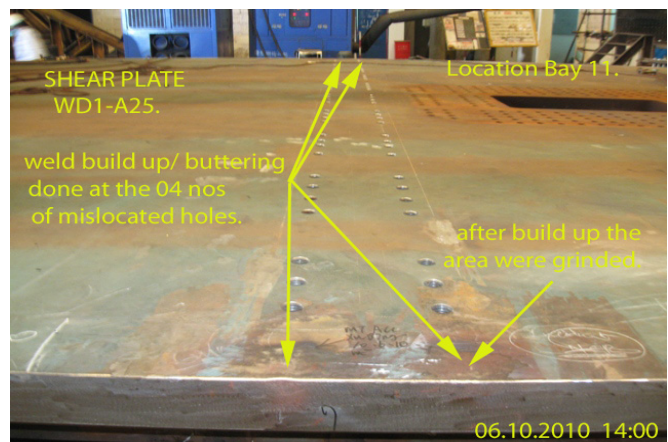
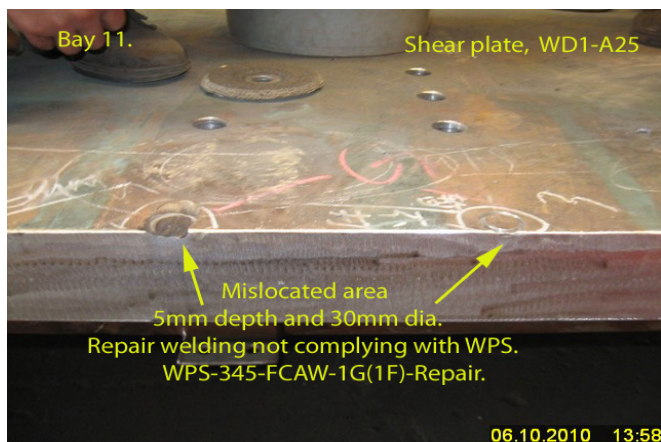
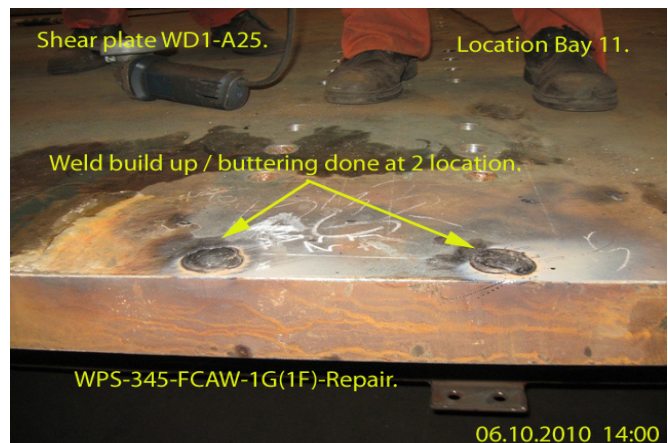
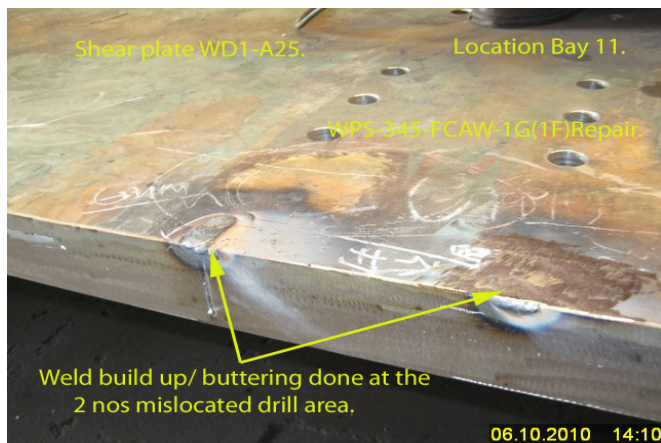
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Zhi Lai, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 050266, Perform Shielded Metal Arc Welding (SMAW) on Interior splice plate. Joint identified as SSD1-SPSA5-6-3A. ZPMC QC Identified as Yu Zhi Lai, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3211-Tc-U5b-1.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Skyler Guest phone: 15000422360, who represents the Office of Structural Materials for your project.

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Inspected By: Gaikwad,Shailesh

Quality Assurance Inspector

Reviewed By: Clifford,William

QA Reviewer